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## GEO-AND ANTHROPO-FACTORS IN MEXICO\*

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### INTRODUCTION

Mexico is the sick nation of America. She has suffered and is still suffering from a long train of ills whose underlying causes have been variously analyzed. Some of these ills are: widespread poverty, ignorance and inefficiency among the masses, a faulty land system, a lack of capital and of industrial leadership, and an inability to maintain an orderly government.

To the onlooker, the troubles of Mexico seem mainly to arise from her inability to maintain a stable government. With the exception of the thirty-year dictatorship of President Diaz, Mexico has suffered a nearly continuous recurrence of civil wars and lesser disorders. In this respect the record of Mexico is the worst among the larger Latin American nations. Omitting the Diaz period, the country has installed and disposed of an average of one president about every eighteen months throughout its period of independence. Those who assume the role of political leadership are likely to become candidates for exile, assassination, or the firing squad. The country has had no less than five new or re-made constitutions, and the present one was drafted by a convention to which only members of one political complexion were admitted. On two notable occasions, the party in power has stripped the churches of their great property holdings. There has been an enormous destruction of property in the late period of revolution and consequent claims reaching into hundreds of millions of dollars, and the piling up of a huge national debt. Land is now being allotted to the landless from the large estates and inadequately

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paid for in government bonds of very questionable value. Owing partly to the incapacity of Mexicans to build up and manage large business enterprises, and partly to the Mexicans' reluctance to place their money in undertakings which the next revolution may destroy, over 90 per cent of the large business enterprises of the country are owned by non-Mexicans, especially by Americans and English.

Question: Are the chronic troubles of Mexico dominantly those arising from geographical causes or from human causes?

#### THE GEO-FACTORS

Let us briefly glance at the *geo* or place features of that country. In size Mexico is four times the area of Germany, a sufficient area for a great nation. Its mountainous topography leaves only a small proportion of level land. In latitude, half of the country lies within the tropics and half in the sub-tropics, but, in large measure, latitude is offset by altitude so far as temperature is concerned.

More than half of the country is desert or near desert. Perhaps 8 per cent<sup>1</sup> is suited to agriculture, but less than 2 per cent is under cultivation (20 to 30 per cent is fair or poor pasture land, and possibly 10 per cent is tropical forest or thin mountain forest). However, when we take into account the henequen land of Yucatan, the level land on the plateau around Mexico City—as fine land as one can see anywhere—the potential coffee and banana lands of the tropical plains and slopes, and the irrigated and irrigable lands, we shall have a productive area much larger than that used by 34,000,000 people in Java, or 60,000,000 people in Japan. Mexico could feed three or four times its present population from its own soil if that soil were as well used as the Japanese use theirs.

The land surface is difficult for railways from the coast to the central plateau, but relatively easy for railways north and south between the United States border and the South Central plateau. The railways between Vera Cruz and Mexico City must ascend over eight thousand feet in about one hundred miles. The recently built link of the Southern Pacific which completes rail connection between this west coast route and Mexico City, cost \$350,000 a mile.

Is the geographical location of Mexico, all things considered, an asset or a liability? Climatically it is probably somewhat more a liability than an asset. Commercially, its location on both

<sup>1</sup> Gamio, Manuel, *Mexico's Agrarian Problems*. Foreign Affairs, Vol. 4, p. 494.

oceans, and near the United States is favorable; but Mexicans declare that some of the most serious troubles of their government have arisen from the country's nearness to the United States.

This leads to what is internationally the most important of the geographical features of Mexico—namely, her great mineral wealth. Since the early days of Spanish control, Mexico has been described as the treasure chest of the world. Her mineral wealth is commonly described as “fabulous.” There is a belief that whole ship loads of gold and silver were sent yearly to Spain during the colonial period. The fact is that the annual production averaged only about twenty or twenty-five million dollars in the best part of the colonial period. The annual mineral output of Mexico in 1922 reached nearly twenty times that figure, mainly because of the large production of oil which reached its high point in 1921-22 (nearly 200,000,000 barrels). The total of all minerals has reached an annual value of over \$400,000,000, but only 4 or 5 per cent of the mineral output is produced by Mexican capital. The oil production has fallen nearly 75 per cent since 1921, and is now less than that of Venezuela. At one time, the taxes on oil paid by foreigners amounted to about one-third of the Mexican national revenue, and the recent rapid decline in that source of revenue is seriously embarrassing the Calles government. The total lack of coking coal in Mexico renders the iron deposits of Durango of small present value.

It is true that Mexico is by far the leading mineral-producing nation of Latin America, but it is to be recalled that all the minerals annually produced in all Latin America have less than the value of the coal produced annually in Pennsylvania alone.

Summing up the geographical assets of Mexico: its commercial location is good; its topographic features at first appear unfavorable, but the high plateau gives a delightful temperature at all seasons, and the mountains provide large metallic wealth. The coast line is unfavorable both in health and in harbors. Forest resources are of only moderate importance. The pasture lands are semi arid, but could carry three or four times the number of animals that they now have or will have so long as revolutions and banditry are common. The agricultural lands can raise corn, beans, and wheat for twice the present population, and the tropical lands might yield several times the food products that they now yield. The mineral production—mainly oil, silver, zinc, lead and copper exceeded \$400,000,000 in the most productive year. This

is more than the output of all South America. In its general geographic endowment, Mexico is ahead of Japan or Italy, two leading nations of the world. The ills of Mexico are not mainly due to geographical handicaps, unless I have greatly underestimated the disadvantages of its climate.

#### CLIMATE AND EFFICIENCY

In two papers<sup>2</sup> dealing with the subject, Dr. Ellsworth Huntington concludes that the Mexican people as a whole are suffering from a serious handicap of ill health, and that their climate is the main cause. My own analysis of the evidence presented in these papers is that it calls for a Scotch verdict—case not proved. That is, the contention that the people of Mexico as a whole are suffering from low vitality or poor health is granted, but that the climate is the cause of this is not satisfactorily established. The causes may lie as much in the mode of life of these people as in the climate. Dr. Manuel Gamio, a highly competent Mexican authority, says: "The peasants are still in the same condition that they were fifteen years ago or fifty years ago—under-nourished, poorly clad, illiterate, earning a daily wage of from 20 to 30 cents American money and living in unsanitary hovels."<sup>3</sup> Dr. Huntington concedes that the Mexican plateau "has usually been considered one of the most healthful parts of the tropics."<sup>4</sup> The fact that two of the highest indigenous civilizations of the New World developed on the tropical plateaus of Peru and Mexico, indicates that low vitality was not characteristic of the natives of these regions. Dr. Huntington concedes: "Thus, much of the year the temperature is close to the optimum for physical health. Perhaps this is one reason why the Indians of the plateau are comparatively strong and active and are able to run astonishing distances with heavy loads on their backs."<sup>5</sup> The climate of the Mexican plateau is not a perfect climate, but if the people of that plateau could have as good food, houses, sanitation, education, and medical advice as the white people of the United States have, the death rate and low vitality would be greatly changed, as they were in New Orleans, Panama, and Havana, when those cities came under

<sup>2</sup> *Geog. Review*, Vol. II, pp. 243-264, 1921; *Journal of International Relations*, Vol. II, 1920.

<sup>3</sup> *Mexico's Agrarian Problem*, *Foreign Affairs*, Vol. 4, pp. 494-498, 1926.

<sup>4</sup> *Geog. Review*, Vol. 11, p. 246, 1921.

<sup>5</sup> *Geog. Review*, Vol. 11, p. 257, 1921.



modern sanitary control. The death rate among the reservation Indians of the United States was cut one-third in a few years by the efforts of the medical division of the Indian bureau. The child mortality among peon families in Mexico is much higher than that among white families, indicating that care may be more important than climate. All experience goes to show that good sanitation, good living conditions, good food, and intelligence in handling illness improve the health and cut down the death rate greatly. It must be granted, however, that the climate of Mexico makes bad living conditions more difficult to correct, furnishes less stimulus to effort, and in both direct and indirect ways promotes a lowered efficiency. The white people of the United States are unquestionably more energetic than the Mexican whites. But it still remains a question as to how much of that difference is actually due to climate, for the greater part of the Mexican people live on a high plateau whose average temperature is not high, in fact, is not far from that which Dr. Huntington considers the optimum for physical vigor.

#### THE ANTHROPO-FACTORS

Let us now turn to the *anthropo*-factors. Of her 15,000,000 people, at least 13,000,000 are Indians and mestizos. The feeble efforts made by the whites to uplift the Indians have scarcely offset the evils that the Europeans introduced. There is relatively little European blood in the Mexican people. Only Spaniards were allowed to settle in Mexico during the Colonial period, and less than a half million of these came for permanent settlement in the three hundred years of Spanish control.<sup>6</sup> There is practically no blood in the Mexican people except Indian and Spanish. Mexico is not, and never has been, a republic. Neither the Spaniards nor the Indians have had the necessary training and experience, nor have the masses the degree of education, necessary for conducting a real republican form of government. During the dictatorship of Diaz the economic development was phenomenal. In a quarter of a century of strong government, Mexico achieved a measure of material progress that only Japan has ever equaled in that length of time. But it ended in a destructive revolution as dictatorships are prone to do. The Diaz régime developed the material resources of the country, but made no adequate effort to

<sup>6</sup> Thompson, Wallace, *The People of Mexico*, p. 40, 1921.

lift the Mexican people to a plane which would make a democracy possible.

#### THE MEXICANS' HERITAGE

The people of any period have a heritage from the past which determines their mode of thought, their ideals, ideas, and standards. The Spanish heritage of the Mexican people does not include fitness for democracy. The party in power manages the elections, and it could maintain itself permanently in office if not deposed by a successful revolution. Hence, revolutions become a part of the machinery of government.

That the chronic ills of Mexico are not necessarily the result of climate seems to be further evidenced by the success of Cuba and Porto Rico, which, within the tropics, are making splendid progress under the stable governments and the American assistance which they now enjoy. Nor is their progress purely economic. It extends to every aspect of their national life. But, Cuba and Porto Rico have no Indians and the white population exceeds the colored. Two other former Spanish colonies, Argentina and Uruguay, are now attaining a fair degree of democracy and a high degree of economic well-being, but in both countries the population is almost wholly of European extraction. Chile has maintained a fairly stable government, but its population contains a relatively small Indian strain. Brazil has a proportionately small Indian population, and it attempted a republican form of government only after a successful half step of nearly seventy years as a monarchy. It is true that all of these South American republics that are succeeding best are partly or wholly in the Temperate Zone. That a Spanish American republic has a better chance of success in a temperate climate than in a tropical is unquestionable. But the climate of the Mexican plateau, the locus of the nation, does not have either the high temperatures or the high humidity that we associate with the term "tropical climate," and the so-called monotony is only relative. The differences between day and night temperatures frequently amount to 25 to 35 degrees, while from sun to shade the difference is still greater.<sup>7</sup>

Beyond question most of the ills of a people are furthered by conditions attendant upon life in hot climates. But the Mexican's indifference and apathy, his acceptance of a low plane of living

<sup>7</sup> Editor's note to Dr. Huntington's article, *Geog. Rev.*, Vol. 11, p. 257, 1921.

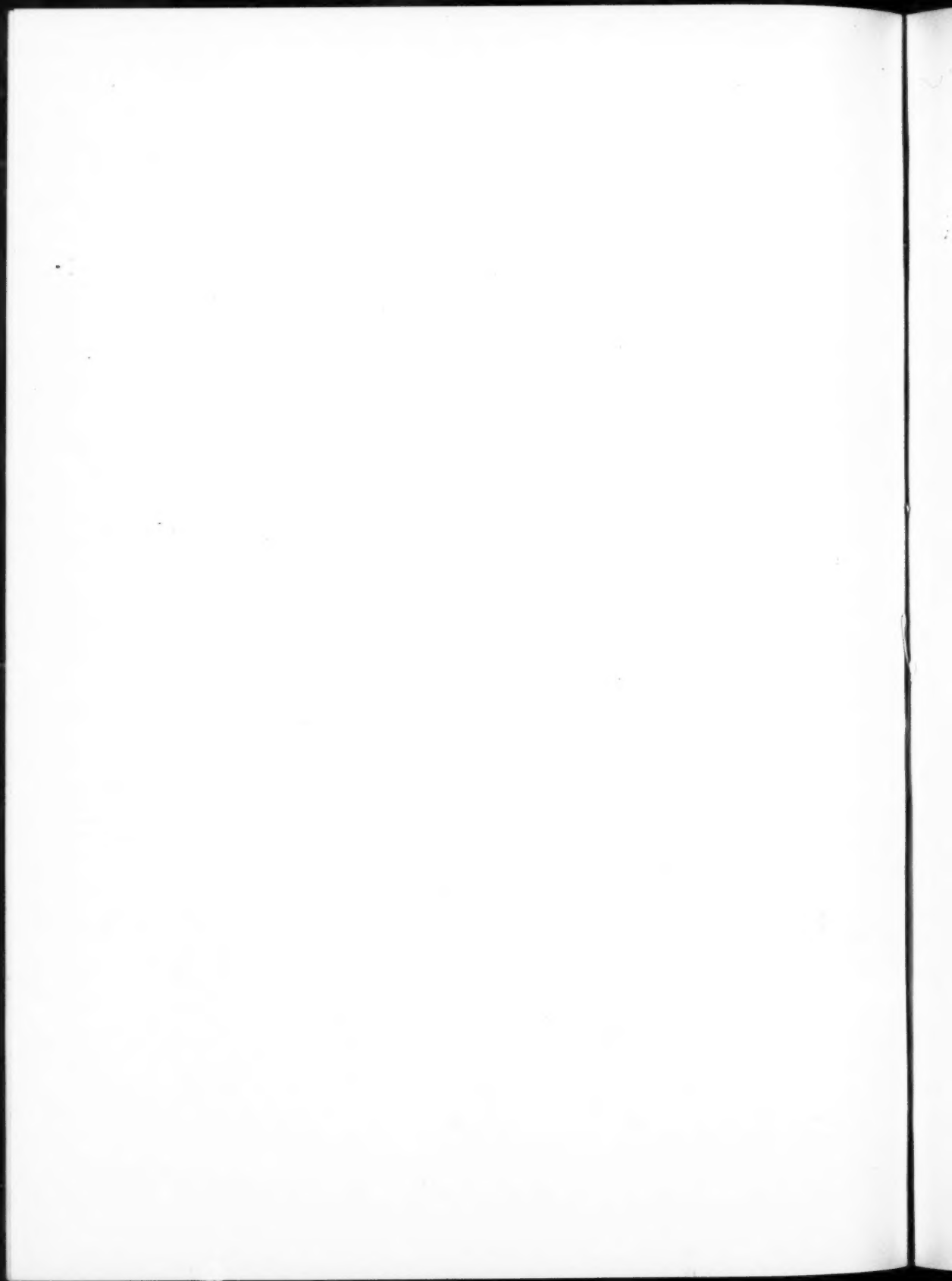
in preference to sustained labor, his lack of initiative and persistence, his dislike of change, and many other traits are found also among the Indians of the United States and Canada, and so are not due to geographical or climatic causes peculiar to Mexico. They are not only Indian traits, they are negro traits as well, and, in general, traits of peoples living on a low cultural plane anywhere.

#### CONCLUSION

It is to be noted that the difficulties that beset Mexico are not peculiar to that country except in degree. Most of its troubles are, or have been, characteristic of other Spanish American countries, but most acutely of countries having a large Indian and mestizo population. Mexico is an outstanding example of mal-adjustments. The attempted republic is a mal-adjustment to the capacities of the masses of the people, and the masses are necessarily in mal-adjustment to this industrial age and to their country with its great mineral wealth which somebody is bound to exploit.

The ills of Mexico run in vicious circles. Probably the country must remain a republic, at least in name. A real republic must have an educated citizenry; but such education is costly and can not be provided by a government that is frequently beset by revolutions. This essential thing—education—waits upon orderly government, under which the wealth of the country may be developed and revenues provided.

To me the conclusion seems to be that the geographical assets of Mexico exceed the liabilities; that if North European peoples guided the destinies of Mexico the difficulties arising from ignorance, unsanitary living, starvation wages, and undernourishment of the workers, would have been largely corrected, as they are being in Cuba and Porto Rico; and that under a competent government, the most serious ills of Mexico can be remedied. Consequently they are, so far as the present is concerned, deficiencies of race rather than of place.



## A DETAIL OF REGIONAL GEOGRAPHY

ELLISON BAY COMMUNITY AS AN INDUSTRIAL ORGANISM<sup>1</sup>

ROBERT S. PLATT

### I. INTRODUCTION

*The Project.*—In this article is presented a bit of regional geography dealing with a minute area. In such an area intensive study has been possible, and in the presentation the many facts need not be reduced to sweeping generalizations. The investigation represents a type of geographic experiment, and might later, with other detailed studies, form a basis for significant generalizations. The study of Ellison Bay is a primary case, an elementary unit in the science of geography.

Even for this small community only certain phases of the geography are here presented. Maps of "The Natural Environment" and "The Cultural Landscape" of most of the area have been published in a previous issue of the *Annals of the Association of American Geographers*.<sup>2</sup> Attention is here confined to the point of view suggested in the title, omitting various topics which might be included in a "complete geography" of Ellison Bay. Whether such a discussion from an all-inclusive view point would be worthwhile is very doubtful.

The area dealt with is not defined arbitrarily, but by the trade bounds of a village community. It is a geographic unit, and regional geography in its lowest terms is the objective of the study. The aim has been to limit the discussion in accordance with the subject discussed. When the investigation began it dealt with an area whose limits were unknown and did not correspond with any measured division; attention was fixed not on certain square

<sup>1</sup> The field work on which this article is based was done by field classes of the University of Chicago, particularly the class of 1926, including C. E. Cruz, L. C. Gilmore, R. M. McCollum, E. C. Pietsch, M. M. Prator, E. N. Torbert, and N. L. Wheeler. Acknowledgments are due to the people of Ellison Bay, without whose friendly and intelligent cooperation the work could not have been carried out.

<sup>2</sup> D. S. Whittlesey, *Field Maps for the Geography of an Agricultural Area*, XV., pp. 187-191, 1925.

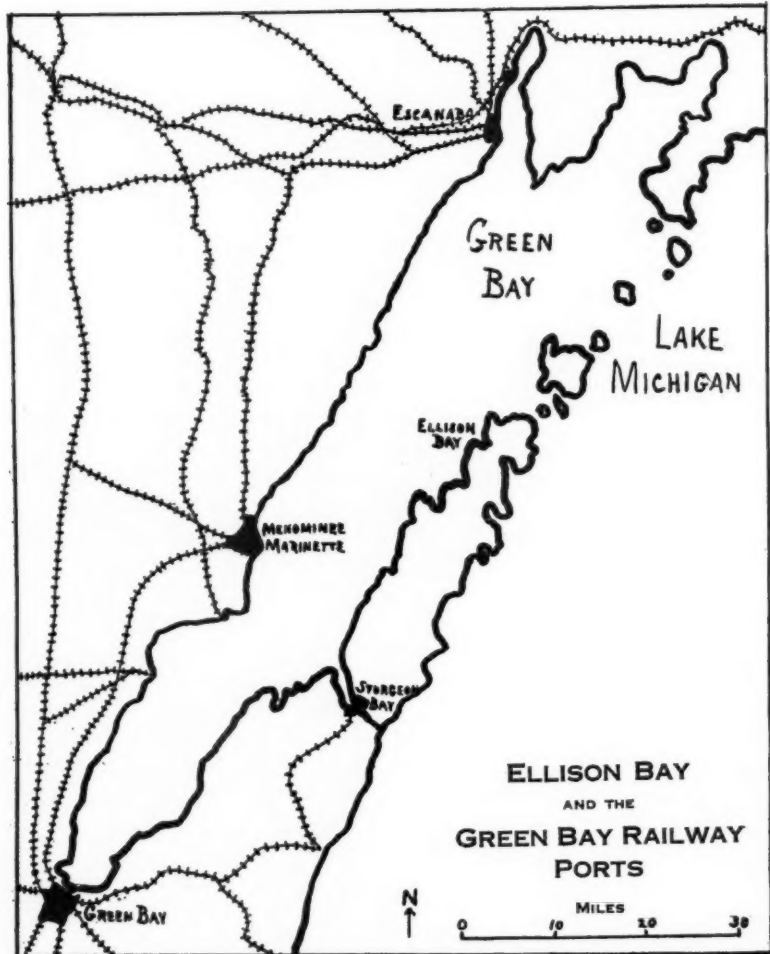


FIG. 1



miles of land but on the occupancy of land by a certain group of people. In the course of investigation the distribution and range of their activities assumed definite form, a pattern woven to fit the patchwork background of their environment. In the presentation of the study the organized life of this areal unit of human activity provides the theme and limits the discussion.

*The Setting.*—The village of Ellison Bay, Wisconsin, has about a hundred inhabitants. In it are centered the interests of a community lying round about and found by investigation to occupy an irregular territory two or three miles in radius.

The community occupies land and water—a bit of land near the tip of the Door Peninsula, a bit of the adjacent water of Green Bay. It sees passing ships of the Great Lakes as a farmer sees express trains pass his fields; it contributes its mite to the streams of traffic through little boats on Green Bay and motor trucks on the peninsula. It has a share in the fishing grounds of the Great Lakes, a share in the fruit lands of the Great Lakes shores, and a share in the northern woods of the Great Lakes region. It is within the extensive hay and pasture province of short summers and diversified glaciated lands; and within that part of the province accessible but not close to great markets where dairying has been developed, particularly for cheese making. It bestrides the Niagara cuesta, and so holds attractions of rugged land and water, which gives it a place among summer playgrounds.

The peninsula as a whole is a salient feature of the cuesta. The jagged edge of the Niagara limestone escarpment overlooks Green Bay; the long back-slope dips gently eastward beneath Lake Michigan. The crest is not an even line but is broken by a series of grooves cutting diagonally across the peninsula and forming indentations on both shores. Between these transverse depressions are the undulating uplands sloping from rocky headlands above Green Bay to low points on Lake Michigan. Deep water lies close to shore on the Green Bay side, and the indentations between the bluffs form sheltered harbors. On each of the harbors is a village. On the last of the westward facing harbors, sixty miles northeast of the base of the peninsula, is the village of Ellison Bay (Fig. 1).

*The Village.*—The white village nestles among trees at the head of its bay and spreads scatteringly up the lower slopes of the bordering uplands (Fig. 2).

The buildings cluster about three points close together: the landing place, the crossroads where the highway is met by a trans-

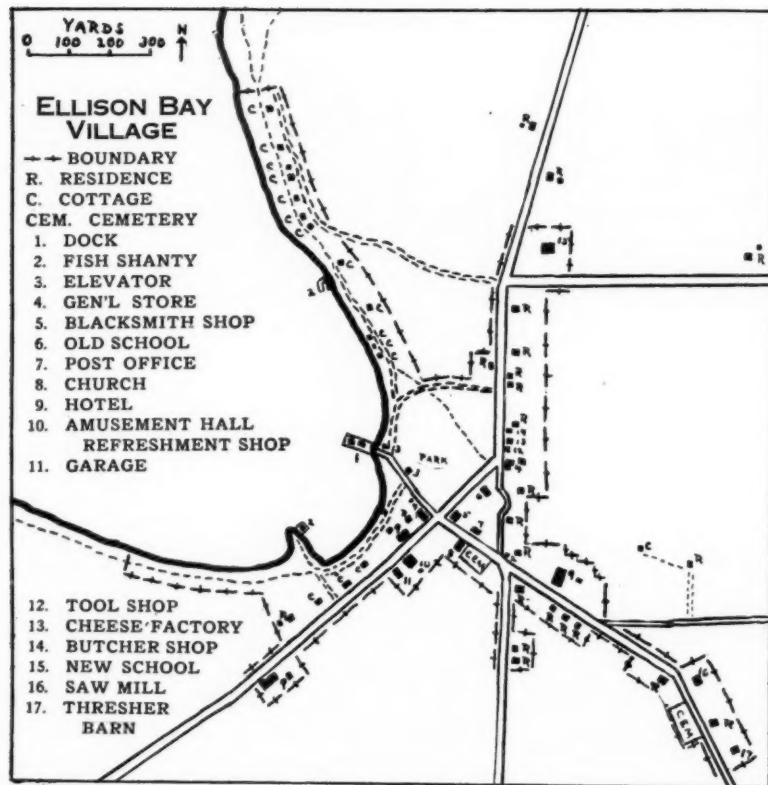


FIG. 3



FIG. 2—Ellison Bay from the south. The village is partly hidden among the trees at the head of the bay. The peninsular highway appears in the middle foreground descending from the upland and is visible again in the village where it turns. On the shore are visible the dock, fish shanties, and summer cottages.



FIG. 4—Local road entering the village from the southeast. Looking toward the highway crossroads and the dock. Post office at right, blacksmith shop at right center, general store at left center, and church at left behind trees.

verse road terminating at the landing place, and the nearby road fork where the highway turns northward (Fig. 3). From this triple center the village spreads along the roads and along the shore, an irregular six-pointed star. Twenty-seven households are contained in it, twenty-five places of business or village activity, and fifteen summer cottages.

At the landing place there are two storehouses on the dock and two elevators. Along the shore are scattered fish docks and summer cottages reached by lanes from the village center. At the crossroads is one of the stores (Fig. 4), and at the road fork is the other (Fig. 5), while within a stone's throw are the post office, the church, the old school buildings, the commercial hotel, the amusement hall, the blacksmith shop, the garage, the tool shop, the butcher shop, and the cheese factory. Beyond this central group are most of the dwelling houses and a few other buildings; the new school, the sawmill, the thresher, and two summer hotels.

In the dwelling houses live the people who operate the village institutions, and in addition some people who are institutions in themselves: the nurse, the notary public, the barber, the cobbler, the carpenters, the laborers. The other householders, although not active, can all give a good account of themselves: two retired farmers, a retired hotel keeper, a retired ship captain, and three widows.

The life of the village is in the activity of the village institutions. These reach out beyond the village into the surrounding territory and depend for their activity upon the enterprises there which draw directly upon resources of land and water. In the surrounding territory there is a sense of common interest and unified life centering in the village. The community is an economic organism, occupying its own domain reaching to the bounds of other communities.

## II. TRANSPORTATION FACILITIES OF THE COMMUNITY

Transportation is of the essence of the community. The heart of the community is a spot reached by transportation routes from the outside world and by local routes focusing upon it. The body of the community is the territory reached by the local routes and looking to the village as the center of its life.

*Green Bay Waterway.*—Of the routes from the outside world the Green Bay waterway bears the heavier loads. The season of activity lasts about seven months and for five months the harbor



FIG. 5—Highway ascending the upland slope at the north end of the village. Looking south toward the highway turn where butcher shop, cheese factory, machine shop, and general store are grouped close to the road. Delivery truck from Sturgeon Bay.



FIG. 6—Regular steamboat arriving at Ellison Bay dock.

is closed. Generally this season has been considered long enough for most requirements; in winter it is not only the harbor that has been inactive: the whole community has barely existed, hibernating until the spring renewal of activity.

During the season, from May to November, the principal regular service is that of a steamboat (Fig. 6) which makes three trips weekly between Green Bay City, Menominee, and Door County ports, supplying to the northern Door Peninsula a freight and passenger connection with railroad centers on the south and west sides of Green Bay (Fig. 1). Ellison Bay is the northernmost stop on the mainland.

The regular service of the steamboat is supplemented by the irregular service of "hookers," gasoline tramps which come in when cargo is offered. Shipments are generally to Menominee or Green Bay. This cheaper service is available for accumulations of bulky slow freight. It is especially significant just before the opening and just after the closing of the regular season of navigation, when these boats are willing to take the risk uninsured. There are four such boats calling at Ellison Bay from time to time.

Another boat service, most regular of all, is of minor importance with respect to the community: the motor boat carrying mail daily between Ellison Bay and Washington Island (Fig. 7). This is not a major water connection but rather a water extension of the land mail route of the peninsula, on which Ellison Bay is the most northerly station. Incidentally there are some passengers carried and some freight in addition to parcel post. But this is local business for the most part, in view of the fact that Washington Island has the steamboat and other connections with railroad points and also has a ferry boat connection with the end of the peninsula north of Ellison Bay.

The mail is carried between Ellison Bay and the island throughout the year with very few days' interruption—occasionally over the ice by sleigh, or part way by boat and part by sleigh. There is also a little winter traffic on the ice across Green Bay to Menominee.

*Peninsular Highway.*—Much more numerous than the arrivals and departures by water are those by land at the village crossroads. The main highway cuts northeasterly along the peninsula, functioning as an extension into the peninsula not only of high-





FIG. 7—Mail stage from Sturgeon Bay and Washington Island mail boat meeting at Ellison Bay dock. Looking east, toward grain elevator in middle background, and church and other buildings near the highway crossroads in right background.

ways from the south and southwest but also of the railway from the south terminating near the base of the peninsula at Sturgeon Bay (Fig. 1). It runs near the Green Bay side of the peninsula, passing through each of the little ports which lie at the heads of the little bays (Fig. 8). In Ellison Bay, the northernmost of the port villages on the Green Bay shore, the highway forks and thence two branches extend to points on the northern end of the peninsula. The width of the peninsula at Ellison Bay is so constricted by indentations on both shores and a swamp on the Lake Michigan side that there are no roads paralleling the highway; all roads join in one and bring through the village all the traffic to and from the northern end.

Regular service on the highway is supplied by a stage company which carries mail, express, and passengers between the railroad terminus at Sturgeon Bay and the peninsular villages, including Ellison Bay and beyond to the northern shore. The mail stage (Fig. 7) makes one trip daily throughout the year, rarely interrupted by storms. Occasionally a sleigh is substituted in winter. The passenger stage makes one trip daily from July to September.

Hardly less regular than the common carriers of the stage line are the private trucks of certain companies from Sturgeon Bay: a bread

truck daily from April to November; an ice cream, soft drink, and candy truck daily from July to September and about once a week at other seasons; a meat truck about once a week during the summer; an oil and gasoline truck likewise; and a cheese truck weekly throughout the year.

During the four weeks of the cherry picking season in July and August there are cherry trucks several times daily from some parts of the community to the Sister Bay packing plant (Fig. 15), an instance of transportation in the Ellison Bay area focusing on another village, and therefore conflicting with the unity of the community.

Other trucks make special trips in and out of Ellison Bay as required (Fig. 5)—bringing in coal, for example, or taking out produce—to say nothing of the countless private passenger cars which come and go, carrying their Ellison Bay owners to the city, or their city owners on country business or pleasure.

A railway extension to the northern end of the peninsula has often been proposed and twice surveyed, but probably will not be constructed. The meager traffic of an area so narrow, so slightly productive, and so well supplied with waterway and highway service, is not likely to afford an attractive return on railway capital investment. The project is not favored in Sturgeon Bay, which now holds a key to the peninsula.

In connection with transportation it may be mentioned that the telephone is a means of external communication chiefly. Of the ten telephones in the community a majority are in the village stores and hotels for communication with Sturgeon Bay.

*Local Transportation.*—Local traffic within the community, in smaller units of greater frequency, focusses on the village and there connects with the outside world through the mediation of the village enterprises.

The fact that the peninsula is constricted at Ellison Bay is perhaps a slight advantage to the village, as previously stated, in bringing through traffic into it, but it is more of a disadvantage in reducing the tributary area. The swampy and sandy transverse lowland is relatively unproductive. On both sides of the lowland local roads reach out into the bordering uplands to meet there the rival limits of other communities (Fig. 8).

The mail carrier makes a daily round of the community, winter and summer, by automobile, except on winter days when a one-

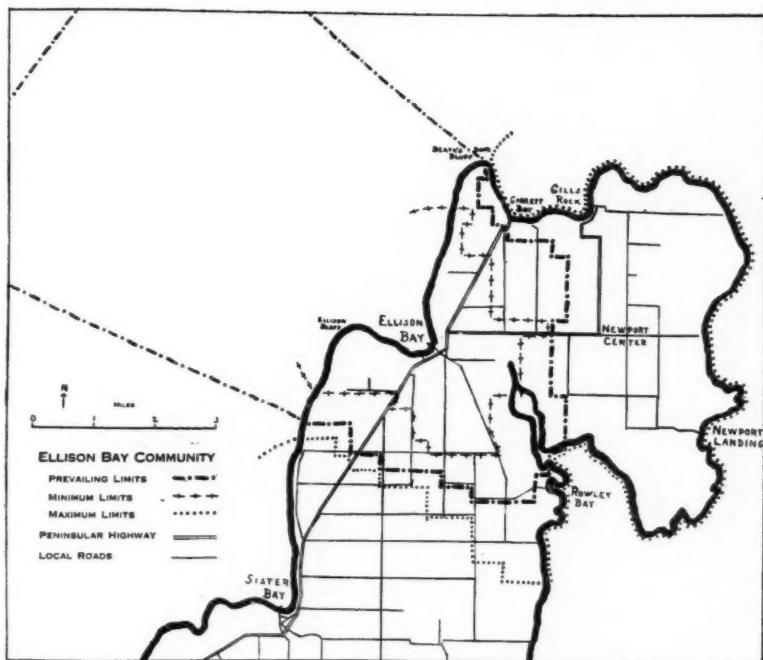


FIG. 8

horse sleigh is substituted and a few spring days when a two-horse buggy is used.

Most other service within the community is a private matter. Almost every household outside of the village is provided with an automobile, and some of them more than one. The most regular service is the daily visit of each patron to the cheese factory (Fig. 13). But each of the village institutions receives visits of similar significance. Even on the water there is local transportation focusing on the village. Four fishing boats make daily trips during the season to take out set lines and to bring back fish (Fig. 18), and six other boats make triweekly trips to bring in the catch from the pound nets.

It is these local connections which give the village enterprises their status as institutions of the community. Without these connections there would be no unified community.

### III. EXTENT OF THE COMMUNITY

The radius of the community is measured by the reach of the village institutions. In general, the area of the community is the territory nearer to Ellison Bay than to any other center. Each of the village enterprises tends to reach half way to the nearest similar enterprise in a neighboring community. If the neighboring villages and their road connections were exactly similar to Ellison Bay, then the boundaries of the community would tend to be definite and to lie half way to the rival centers. Since the neighboring villages are somewhat dissimilar in the number and character of their enterprises, there is disconformity in the territory served by the Ellison Bay enterprises. Some activities reach farther than others, and the exact boundaries of the community are difficult to define. The unequal constituency of different establishments is indicated by the following list showing numbers of participants in various activities:

Ellison Bay Potato Association Members.....	75
Regular store customers .....	64
Thresher customers, 1925.....	30
Cheese factory patrons, 1925.....	23
Saw mill customers, 1925.....	16
Partners in fishing establishments.....	14
Moving picture audience, average.....	200
Post Office families.....	147
School district families.....	77
Church families .....	60

The differences in this list are due in part to differences in areas served and in part to differences in constituents within a given area, as indicated in the following discussion. In spite of differences in areas, a generalization on the extent of the community is possible, and to the above list may be added:

Households in territory served principally by Ellison Bay....	85
Outside of village.....	58
In village .....	27

An examination of the limits of various activities discloses some basis for this generalization and additional facts in regard to the extent of the community (Fig. 8).

At the Ellison Bay village site are the fundamental features of sheltered landing place, highway passing close by, and local road focus. A similar and slightly stronger combination of landing place, highway and local roads occurs at Sister Bay, five miles to the southwest. There is a less concentrated occurrence of similar elements northeast at Gills Rock and Newport, and there is a suggestion of them southeast at Rowley Bay.

Each of the Ellison Bay enterprises, with one exception, is matched if not surpassed by a similar enterprise at Sister Bay; several of them are matched in the Newport-Gills Rock area; and one or two of them are matched at Rowley Bay.

Regardless for the moment of superiority in certain respects, Sister Bay has the same boat service as Ellison Bay and similar dock service. Since traffic tends to seek the nearest port to obtain this service, the boundary between the areas tributary to the two ports is almost exactly half way between, for automobile traffic on the local roads. The boundary crosses the peninsula from shore to shore, there being no boat service on the Lake Michigan side. The lake shore is far from the boat routes to railway ports on Green Bay and far from the better road routes of the Green Bay shore.

Northeast of Ellison Bay the only significant landing place is at Gills Rock. Being almost at the end of the peninsula in a northward facing bay, Gills Rock is less of a road focus and village center than Ellison Bay—even less of a focus than Newport Center, two miles inland. Like Ellison Bay, Gills Rock has a dock storehouse and “hooker” service, but it does not have the steam-boat service nor agricultural warehouse and elevator service. Consequently the Ellison Bay dock serves the territory more than half way to Gills Rock and in some ways, particularly in connection with

farm shipments, it serves the entire northern end of the peninsula.

The stores, shops, and garage of Ellison Bay similarly are matched at Sister Bay by active competitors, strengthened by the business of a more productive farming area and a more numerous summer colony. The boundary between the territories of the two shopping centers is not definite nor fixed. The services are so diverse, the personal considerations so weighty, and the mobility of the customers so great that the factor of distance alone does not decide the matter. There is a zone containing customers of both centers. In general, however, the people shop in the village where they are served in other ways, and the boundary may be considered approximately the same as that for dock service. In fact, the storehouses on the dock should be considered among the stores, as they are used for a merchandising business in certain commodities, catering particularly to dock patrons.

At Newport Center there is a general store with refreshment and filling station service. This competes to some extent with the Ellison Bay general stores, refreshment shops and garage. But it is not equal to the older, more varied and more strongly supported establishments of Ellison Bay. The village stores extend their dominion more than half way and have some customers scattered even to the end of the peninsula.

The refreshment shops do not reach out independently but serve generally people who are in the village for other reasons. The village butcher serves the end of the peninsula without competition. The garage meets competition only in selling supplies and not in repair work. The tool shop and blacksmith shop are without competition.

The elevators are even more closely related to the dock service than are the stores. They are both located beside the dock and one of them is operated by the dock management. Peas and grains are brought to the elevators from the farms for cleaning and potatoes for grading. From here they are shipped by water or land. There is similar service at Sister Bay, but not at Gills Rock. The Ellison Bay elevators receive produce from the territory about half way to Sister Bay and all the way to the end of the peninsula.

The cheese factory has a more definite territory; distance is a more compelling factor than in the case of the stores or even of the elevators. It requires an early morning trip six days a week throughout the year, seven days a week in summer. Road distance by automobile, wagon, or sleigh is of daily consequence. The serv-



ice rendered is simple, and, although the business is competitive, it is the same from place to place even in details of operation, standardized under state supervision. Personal considerations have little weight and only in exceptional cases does the cheese factory reach more than half way to the nearest competitor.

Formerly the Ellison Bay cheese factory was without nearby competition and drew its milk supply from a large part of the fertile upland areas on both sides of the transverse depression. A factory recently established at Rowley Bay and another at Newport Center now flourish near the heart of each of these upland areas and the Ellison Bay factory is confined to a less productive part of its old territory, the most restricted form of the Ellison Bay community.

An institution performing a service comparable to that of the cheese factory is the threshing machine. The commodity with which it deals does not require daily attention in small quantities like milk, but annual attention in one large quantity. For that one occasion each customer is visited by the machine. This system leaves to the farmer the marketing of the product, either through another village institution or otherwise, whereas in the case of cheese the factory handles the marketing. The fact that grain is more easily marketed than cheese is a secondary factor in favor of the moving machine.

This system does not lead to activity in every direction around the village. The thresher moves out in one direction, leaving the village, perhaps invading the territory of one competitor while conceding territory on the other side of the village to another competitor. There are differences from year to year in the route followed and the territory covered. Therefore it is only in an average of years that the changeable limits of activity may be said to reach half way to the headquarters of competitors at Sister Bay and Gills Rock.

The sawmill also receives and treats a product of the community. Logs are brought to it in small quantities to make boards for home use. Since the product is not for export from the community the outside routes are not of significance as compared with the focus of local routes. Even the local routes are not used intensively for the sawmill, since its service is only of minor interest to only a fraction of the community, and is required infrequently and irregularly. Its territory is not definite, especially since its competitors do not offer equal competition. The sawmill at Sister

Bay is larger and does a commercial lumber business as well as sawing logs on commission. Consequently, it sells to customers in the Ellison Bay area. On the other hand, the sawmill at Newport Landing has been diverted to private use almost exclusively so that the Ellison Bay mill has customers in the Newport area. In general the Ellison Bay mill saws logs on commission for customers almost half way to Sister Bay and more than half way to Newport Landing.

The fishing establishments are like most of the other commercial institutions in depending on the village as a focus of local routes connecting with outside transportation service. They are different in having no relation to the landward extent of the community. Their local water routes mark the extent of the Ellison Bay domain along the shores and out into Green Bay. The limits of pound net fishing along shore are definite: southwest around Ellison Bluff half way to Sister Bay and north to Death's Door Bluff half way to the fishing settlement of Gills Rock. Out in the bay the limits are less definite: there are no exclusive private holdings as in pound net sites and farm lands; motor boat mobility is so great that a few miles' distance is not a strong factor against opportunities to make a catch. The one definite limitation is the middle of Green Bay, not due to competition from the fishermen on the opposite shore, but due to state jurisdiction. The cost of a Michigan license keeps most of the Ellison Bay fishermen on the Wisconsin side of the bay. On their side Ellison Bay fishermen mingle on the fishing grounds with men from other ports, sometimes fishing near Ellison Bay and sometimes near Sister Bay or Gills Rock. There are no fishing grounds used exclusively by Ellison Bay fishermen, and the extreme limits of their operations are many miles southwest, beyond Sister Bay, many miles north, beyond Washington Island, and even east beyond Gills Rock in Lake Michigan. These limits are hardly to be considered community boundaries, and perhaps the arbitrary limits of greatest proximity to Ellison Bay are the best indication of Ellison Bay waters.

The hotels at Ellison Bay, only in a minor phase of activity, have the same relationship to the community as the typical village enterprises. This phase is the small amount of commercial business which has to do with the focus of local routes and the external connections. One hotel is open all year and is patronized by traveling salesmen who make Ellison Bay their headquarters for cov-

ering the end of the peninsula beyond Sister Bay. There are similar accommodations at Sister Bay but not in the Newport-Gills Rock area.

As summer resorts, the hotels and cottages have important connections with the outside world through the village, but no community lines focusing upon them. In this respect they are like the individual farmsteads rather than like the village establishments which handle farm goods. There are hotels at Gills Rock and Garrett Bay and some cottages scattered along the shore north and east of Ellison Bay, as well as numerous hotels and cottages in the opposite direction at Sister Bay and a few cottages at Rowley Bay. The territory within which summer visitors trade and travel through Ellison Bay is about the same as its territory for other trade and travel. Most of the summer places are along the shores and the Ellison Bay boundaries are about the same as for pound net fishing, southwest beyond Ellison Bluff and north to Death's Door Bluff, even though the cottages are reached by land and not by water.

The school is an institution with a definite district fixed by agreement. The radius of the district is based on daily walking distance for the pupils, and the boundaries of the district are equidistant from other similar schools. South of Ellison Bay the boundary is half way to the consolidated school near Sister Bay. In the other direction it is half way to the school at Newport Center. This latter boundary is modified by the fact that the Ellison Bay school has high school classes and Newport does not, so that Ellison Bay draws high school students from the whole end of the peninsula.

The church is a community institution, although its territory is made indefinite by denominational affiliations and other personal considerations. Ellison Bay has a Lutheran Church, while at Sister Bay and Newport Center there are Baptist churches. In general the Ellison Bay community is Lutheran and the others are Baptist, although there is some interchange of people.

The community lines are more definitely drawn in the Sunday school: children are likely to walk to the nearest Sunday school, even though their parents belong to a different church. The limits are about half way to the Sister Bay and Newport Center churches.

Both the school and the church depend on the focus of local routes at Ellison Bay, but not on the outside connections. In this respect they are like the sawmill and unlike most of the other establishments of the village.

None of the other establishments of the Ellison Bay community are matched in the Newport-Gills Rock area. The problem of determining the extent of their territory is therefore less complex. They reach to the northern end of the peninsula, covering the Newport-Gills Rock area.

The post-office is a village institution whose territory is exactly defined. The nearest post-office on the south is at Sister Bay. Since there is similar service and no competition but unified supervision and organized cooperation between the post-offices to cover both communities, the boundary line between the two is set for convenient mail delivery equidistant from both. The boundary crosses the peninsula from shore to shore. North of it Ellison Bay has the only post-office and serves the entire end of the peninsula. Well located to receive mail by the highway and to distribute it by automobile over the roads which focus there, Ellison Bay is the logical place for the post-office in this area in which one and only one has been needed.

The amusement hall holds a unique place in that it reaches not only into the Newport-Gills Rock but also into the Sister Bay area, not meeting equal competition in either place. The weekly moving picture show draws an automobile audience from a larger territory than any of the other village enterprises, since there is no such entertainment in the Baptist community of Sister Bay. There are dances at Sister Bay which compete to some extent with the moving picture shows and accompanying dances at Ellison Bay. But even this competition is not direct, since the entertainments are often held on different nights and draw part of the same patronage at both places.

The people who play the role of community institutions have their limits, more or less definite, as do the other institutions. The notary public serves people who do business in the village. The nurse, the carpenters, and the laborers move in the community more widely and irregularly than the thresher. They all meet competition in the direction of Sister Bay rather than of Newport and Gills Rock. Neither the barber nor the cobbler has a shop and each of them practices his trade as a side line for the benefit of friends in the community. There are establishments at Sister Bay which care for the trade regularly.

From the examination of individual enterprises it is evident that the boundaries of the Ellison Bay community are not sharply defined. It is also evident that there are extreme limits beyond which Ellison Bay has no power of attraction in any community activity

and narrow limits within which Ellison Bay has complete power of attraction in all such activities. Between these limits is the zone of divided attraction where some interests center in Ellison Bay and others elsewhere. This zone is narrow in the south, where Sister Bay matches almost every activity<sup>3</sup>, and broad on the northeast, including all of the Newport-Gills Rock area. It is not surprising that in a broad sense this latter area is considered part of the Ellison Bay community, in view of its relative weakness in some activities and its lack of others, and in view of the absence of a concentrated village focus. In Newport Center is seen the rise of a new community, in an area which formerly was an outlying but integral part of the Ellison Bay territory, but which now in the course of more intensive development is acquiring its own community institutions—cheese factory, store, and church all new within a few years. In this study it is not included in the territory "served principally by Ellison Bay," for already it may be considered a separate community subordinate in some respects to Ellison Bay, just as Ellison Bay is overshadowed in some respects by Sister Bay, and Sister Bay in turn by Sturgeon Bay.

The idea of these communities as equals side by side is incomplete, for equality in some respects is accompanied by inequality and subordination in others. Rural activities look to the smallest village focus for immediate services needed close enough for daily visiting or heavy hauling, and to greater centers for more centralized and larger scale services visited less frequently or reached indirectly. The farmer at the northeastern end of the peninsula takes his milk daily to the Newport cheese factory and goes less frequently to Ellison Bay to ship his potatoes and for some other purposes. Farmers of both Ellison Bay and Newport go occasionally to Sister Bay for a variety of merchandise in larger stores, for the disposal of cherries and the grinding of wheat, for the Chicago steamboat, for town meeting and for the undertaker. They telephone or take a trip to Sturgeon Bay for telegraph office, bank, hospital, courthouse and other establishments centralized for the whole county in the county seat and railroad terminus. With the people of the whole county and other counties they look to Green Bay for wholesale houses, purchasers of their products, and headquarters of their boat service. With the people of the whole state and of other states they look to Chicago for mail order

<sup>3</sup> The drawing of moving picture audiences from Sister Bay seems too insignificant to be included in setting the broad limits.

houses and larger wholesalers, for their ultimate market, for the source or destination of many things.

These relationships, patent in the present development of community life, are latent in the arrangement of natural features: the head of Lake Michigan as the focus for a national inland metropolis; the head of Green Bay for a regional center; the head of Sturgeon Bay for a county seat; and the head of Ellison Bay for a village focus, slightly inferior to Sister Bay and superior to Newport and Gills Rock, the heart of a community lying within a three-mile radius.

#### IV. ACTIVITIES OF THE COMMUNITY

Through the commercial establishments of the village there are seasonal flows of goods in reciprocal streams.

The outward flow from the community to the outside world is indicated by the following table:

SHIPMENTS OUT OF ELLISON BAY, 1925

	<i>Product</i>	<i>Value</i>	<i>Amount</i>	<i>Concentrating Point</i>	<i>Chief Route</i>
			lbs.		
Fruit \$36,300.....	{ Cherries	\$20,000	400,000	Sister Bay	Cherry truck
	{ Apples	14,500	1,200,000	Dock	Steamboat
	{ Strawberries	1,800	20,000	Dock	Stage
Fish \$20,000.....	{ Fresh fish	\$18,583	213,200	Fish shanties	Steamboat
	{ Salt fish	1,426	62,800	Fish shanties	Hooker boats
Livestock Products \$16,000...	{ Cheese	\$12,800	59,690	Cheese factory	Cheese truck
	{ Eggs	2,500	10,000	Stores	Stage
	{ Whey cream	500	2,000	Cheese factory	Ice cream truck
	{ Poultry	200	600	Post-office	Stage
Field Crops \$13,100.....	{ Potatoes....	\$8,000	1,000,000	Elevators	Steamboat
	{ Peas	5,000	100,000	Elevators	Steamboat
	{ Grains	100	5,000	Elevators	Steamboat

The inward flow to the community from the outside world is indicated similarly:

SHIPMENTS INTO ELLISON BAY, 1925

<i>Commodity</i>	<i>Value</i>	<i>Amount</i>	<i>Distributing Point</i>	<i>Chief Route</i>
		lbs.		
Groceries	\$22,000	125,000	Stores	Steamboat
Dry goods		10,000		
Hardware		50,000		
Machinery		6,000		



Confectionery.....	6,000	8,000	Refreshment shops	Ice cream truck
Auto supplies.....	5,000	10,000	Garage	Oil truck
Meat.....	2,000	8,000	Butcher shop	Meat truck
Feed.....	2,000	40,000	Dock	Steamboat
Seed.....	2,000	50,000	Dock	Steamboat
Coal.....	400	120,000	Cheese factory	Coal truck
Lumber.....	300	10,000	Dock	Steamboat
Fish boxes.....	300	4,200	Dock	Steamboat
Furniture.....	200	2,000	Dock	Steamboat
Fertilizer.....	100	6,000	Dock	Steamboat

In addition to the outward and inward flows of goods, community life is evident in other activities, involving movement within the community, focusing on the village. These are suggested by the following list:

#### INTERNAL SERVICES OF ELLISON BAY, 1925

<i>Establishment</i>	<i>Cost of Service</i>
Hotels.....	\$5,000
School.....	4,000
Cottages.....	3,000
Amusement hall.....	2,500
Garage.....	2,000
Butcher shop.....	2,000
Thresher.....	800
Church.....	800
Blacksmith.....	200
Sawmill.....	100
Carpenters.....	100
Stores.....	80
Notary Public.....	80
Barber.....	25
Nurse.....	..

Analysis of these tables shows readily that the economic life of the community is based on a few fundamental interests. The community is organized around certain industries which have been developed to take advantage of certain resources of the area. The community center is a focus coordinating the farms and other basic units of the industries, the living cells of the community organism. These activities are considered in succeeding pages.

#### FARMING

Ellison Bay is primarily a farm village, the center of a farming community. This is indicated by the products shipped and the supplies received. Three of the principal village institutions handle farm products exclusively: the cheese factory, the elevators, the thresher. Most of the others also handle farm products or farm supplies or serve farmers in other ways.

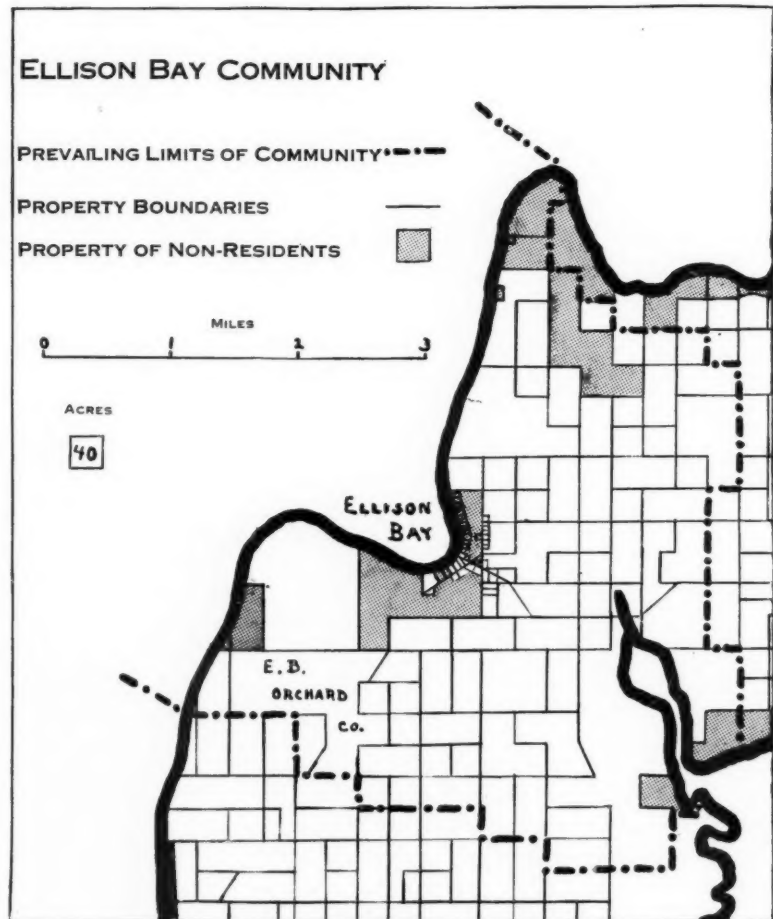


FIG. 9

The basic units of farm activity are the individual farms. Of these there are sixty-five in the community. The land is divided among them in accordance with a square section survey. A regular pattern of rectangular farms is superimposed on the irregular pattern of hills and swamps, sands and silts, as economic units apparently set down upon and not cut to fit their natural setting (Fig. 9).<sup>4</sup>

Most of the farms are of forty acres or a multiple thereof. But the property areas and boundary lines are not significant. The "forties" are merely convenient measuring squares for dealing out to each farmer enough cultivable land for him to work as a unit with whatever family aid he has available. In the best areas one of these units is enough for a farm; in mediocre areas two. In poor areas many forties are appended to better farm lands and some do not belong to farms. Seventeen per cent of the land of the community is not in farms. Forty-six per cent of the community is cut-over, marsh, and timber land, belonging to farms, some of it used as rough pasture, some of it supplying a little wood, but a large part of it lying idle and almost none of it taxed as productive land. The rest of the land, thirty-seven per cent of the community, is agricultural land.

Naturally the unproductive areas are not evenly distributed among farms, the large appendages of a few farms raising the average farm size to 102 acres, although more than eighty per cent of the farms have no more than 80 acres.

The agricultural land is distributed more evenly, the average amount of 43 acres per farm being about the normal quantity. This is designedly the case in this community of economic equality and similarity of organization. Forty-acre farms have a little less than the average of agricultural land and eighty-acre farms generally a little more, although the best forty-acre farms have more than the poorest eighty-acre farms. At one extreme are a few properties which are hardly to be classed as complete farms, having less than 10 agricultural acres giving part time work to men otherwise engaged. At the other extreme are only four farms with 80 or more agricultural acres. Of these four, two represent the burdensome heritage of over-extension, one represents the energy of the families of two brothers, and one, the largest of all, represents a distinct development not to be classed with the

<sup>4</sup> Compare with this figure the map of "The Natural Environment" in D. S. Whittlesey, *op. cit.*, *Annals*, XV., p. 187.

other farms, a specialized corporate enterprise. Evidently significance lies not in total farm areas, but in productive farm areas.

Even the agricultural land shows the influence of the rectangular survey.<sup>5</sup> Fields commonly are rectangular, although they are made large or small for placement on good land and are modified in form where circumstance demands. In some places good land is separated from poor land by a sharp line of demarcation—a steep slope, a rocky ledge, or a marsh border. But in many places there is no such sharp distinction; deep silty soil merges into shallow, stony, or sandy soil through a marginal zone, into which some fields penetrate farther than others to complete the rectangular pattern or for other reasons.

The clearing of the marginal land has depended generally on its relations to other land, on its distance from roads, or on the energy or needs of its owners. The clearing even of relatively good land has been laborious on account of the large number of stones to be gathered and piled (Fig. 10) as well as the stumps to be pulled. The marginal quality of some land is due to excessive stoniness to be overcome by extra costly clearing. Very little clearing has been done in recent years of farm depression.



FIG. 10—Typical farm land in August. Local road, rotation crop field from which stones have been cleared occupied by barley, stony pasture in background, and farm buildings in distance.

<sup>5</sup> See map of "The Cultural Landscape" in D. S. Whittlesey: *op. cit.*, 187.

In general most of the good cultivable lands have been cleared. They fit into the landscape, concentrated in the uplands, where silty soils overlies the limestone; dispersed along shore and in the transverse lowland, where steep, stony, sandy or swampy areas prevail;<sup>6</sup> they spread on into other communities uninterrupted except by farm boundaries for convenience of administration and by community boundaries for convenience of transportation.

Thus is emphasized the complexity of geographic delimitation and the necessity of boundary settlement by a sharply defined viewpoint. In this study the community as a trade organism supplies the viewpoint and limits the discussion.

The land of the community is occupied as follows:

Total land.....	7768 Acres
Not in farms.....	1300 Acres
Waste.....	678 Acres
Commercial and residential.....	622 Acres
In farms.....	6468 Acres
Waste and rough pasture.....	3440 Acres
Agricultural.....	2856 Acres
Timber.....	140 Acres
Commercial and residential.....	32 Acres

#### Use of agricultural land, in percentages of 2856 acres:<sup>7</sup>

Hay and cultivated pasture.....	50%
Timothy and clover.....	37
Alfalfa.....	8
Sweet clover.....	5
Small grains.....	22%
Oats.....	15
Barley.....	4
Buckwheat.....	1
Rye.....	1
Wheat.....	1
Intertilled crops.....	17%
Corn.....	7
Peas.....	4
Potatoes.....	4
Miscellaneous.....	2
Fruits.....	11%
Apples.....	6
Cherries.....	5

<sup>6</sup> Soil in the upland is mostly Miami loam, with some Miami fine sandy loam, silt loam, and gravelly loam; in the lowland peat, and Miami fine sand, fine sandy loam and gravelly sandy loam; along the shore mostly rough stony land. See U. S. Dept. of Agriculture, "Soil Survey of Door County, Wisconsin," 1918.

<sup>7</sup> Percentage based on definite information from about two-thirds of the farms and observation of the others.



FIG. 11—Timothy hay field of one of the better farms in July. Farm buildings in background. Edge of woodland too steep and rocky for cultivation at left.



FIG. 12—Herd of Holstein cows, better than average quality, in clover pasture on a good farm.



*General Farming.*—The Ellison Bay community was once an area of wheat farming indistinguishable in aspect from the rest of the Door Peninsula. But that day has long since passed, with the decline in yields and the increase in western competition. Stony fields of small extent offer scant opportunity for competition in grain markets against regions of large scale, extensive farming.

The one crop system has been succeeded by general farming with livestock and rotation of crops; and by some specialization in fruit growing, a subject for separate consideration.

Dairying is the central feature of the farm system. There is much land available for pasturage (Fig. 10), too stony for cultivation, included in the great area of cut over and wooded lands of the community. The relatively cool short summers\* are unfavorable for the ripening of corn but favorable for silage corn, oats, hay and other fodder crops as well as for pasture grasses (Figs 11 and 12). Cool temperatures are favorable also for the handling of milk.

There is no accessible market to consume much of the fresh milk and the product must go to the consumer in a less perishable form. There are only about three hundred cows in the Ellison Bay area, too few to support a milk condensery in the community and too isolated for a condensery in an area including the Ellison Bay community. Formerly there was a creamery at Sister Bay taking cream from such an extended area including Ellison Bay. It flourished where a condensery was impracticable, because it needed only cream in mediocre condition instead of whole milk in perfect condition and therefore could accept infrequent and delayed deliveries from distant farms.

Now butter making has been superceded by cheese making, which generally pays a little more for the farmer's output. The

\* Climatic Data for Sturgeon Bay

(U. S. Dept. of Agriculture: op. cit. 8, 9)

Mean Monthly Temperature, in Degrees Fahrenheit

Jan.	18.7	Apr.	39.7	July	65.7	Oct.	47.6
Feb.	17.9	June	60.4	Aug.	65.7	Nov.	34.7
Mar.	26.6	May	49.0	Sept.	59.5	Dec.	24.7

Average Length of Growing Season: May 25th to October 2nd.

Latest Recorded Date of Killing Frost: June 20th.

Earliest Recorded Date of Killing Frost: September 9th.

Mean Annual Precipitation: 31 inches, approximately, of which about 14 inches fall in the growing season.

cheese factory requires the whole milk in fresh condition and cannot endure the delayed deliveries of a creamery. However, it needs the milk of only about three hundred cows to be successfully operated, instead of the cream of a thousand cows needed by the creamery. Therefore the cheese factory can exist in a part of the territory of the creamery and take the milk from a small compact group of farms. The Ellison Bay cheese factory offers a more convenient and profitable market for the milk of a part of the territory formerly supplying material to the creamery. Other similar factories occupy other parts.

The factory is a small frame building containing one cheese vat operated entirely by one man (Fig. 13). Probably there is no more conspicuous example of a manufacturing industry impelled to small scale operation by the peculiar advantage of close proximity to the source of raw material.

Early every morning each farmer brings his milk to the factory and by afternoon the cheese maker has converted the day's receipts into the day's output of American cheese, biproduct cream, and whey. Most of the whey is wasted because its use for pig feed is not well known in the community and not many pigs are raised. The biproduct cream is taken by an ice cream delivery truck on its return journey to a Sturgeon Bay creamery. The cheeses are collected weekly by the truck of a buyer on a round of the peninsula, to be taken to Sturgeon Bay for storage and distribution.

The increasing number of summer visitors offers a more profitable market for part of the milk during a short season, to the loss of the cheese factory. However, there is room for larger and better herds, and prosperous years of farming after the current depression should be accompanied by prosperous years of milk supply ample for the little cheese factory.

Ellison Bay farms are not specialized dairy enterprises, although dairy cows are the center of farm life and milk is the most regular and dependable source of income. There are no more than five cows per farm on the average, and there are no very large herds, there being similarity among the farms in this respect as in others.

A few other kinds of livestock have a place in the general farm economy. On most farms there are chickens, depending on incidental feed and labor, and producing considerable income from the sale of eggs. On some farms there are a few pigs, calves, or colts

for home supply. Horses belong not among the products, but among the conservative equipment of most of the general farms.

Among the miscellaneous farm products are certain crops which do not contribute to dairying or other livestock interests. Almost every farm has four or more fields, and in them generally a three or four-year rotation of crops is practiced. The first place in rotation is occupied in many cases by silage corn, a dairy crop. About half of the farms have silos. But equally common are crops of potatoes or peas, well adapted to the short growing season, light soil, and small scale methods of the community, and suitable for marketing.

The potato crop is so important and the problems of marketing it so serious that the Ellison Bay Potato Association has come to be the chief organization of farmers in the community. By co-operation it is hoped to consummate sales at prices more favorable than those obtained by individual farmers. The association has been active and helpful in connection not only with potatoes but also with other farm interests. Through its elevator and management of the dock the association performs for commercial crops such service as the cheese factory performs for milk, and through its supply service it supplements the village stores.

Potatoes are hauled by farmers to one of the elevators to be graded mechanically, stored if necessary, and shipped from the dock, generally to an agent in one of the Green Bay railway ports.

The peas are of the Canada field and marrowfat varieties, and being dried they do not need to be marketed fresh or to be grown within reach of a cannery. Their quality is found to be so excellent that they are marketable for seed in other areas. They are threshed in the fields like grain; then hauled to the Ellison Bay elevators to be cleaned. Like other crops they are handled mostly by the potato association, and shipped to a railway port.

Small grains occupy a larger but less distinctive place among the crops (Fig. 10), second in rotation, or first when intertilled crops are omitted, providing fodder, food, and seed, and in a few cases a surplus hauled to the elevators to be cleaned and shipped away. Wheat fields are few and small, barely enough to show that the one-crop era was possible and that both winter and spring wheat can be produced in this lake shore area just beyond the margin of the Corn Belt. Buckwheat and rye likewise are hardly more than represented. Oats and barley on the other hand are

raised on most of the farms, yielding well and responding to the insistent demands for fodder.

The conditions of climate and soil are fairly satisfactory for these grains, after removal of stones, but in recent years annual invasion by grasshoppers almost annihilated the crop. Some farmers have omitted them entirely from the rotation. The isolation of the narrow peninsula has made it easy to eliminate the grasshoppers by concerted effort. But the production of grain is likely to remain secondary and the export of it insignificant.

Hay and pasture occupy the last but largest place in rotation (Fig. 11). In fact they occupy the only place on some farms where years of unprofitable farming have discouraged all efforts at producing any but the simplest of field crops. Timothy and clover make the commonest hay, but alfalfa grows well and is spreading in the community, and sweet clover is a satisfactory alternative. Occasionally a few bales of hay are hauled to the Ellison Bay dock for shipment to a city port, but most of the crop is used in the community as a mainstay of livestock industry.

In dairying and in the raising of potatoes, peas, and other field crops the Ellison Bay community is not peculiar, but merely shares the advantages of a larger area. Cheese making is a Wisconsin industry. Potatoes find favorable conditions in many parts of the Upper Lakes region. Peas are a specialty of an area in northeastern Wisconsin, in which it is difficult to detect any exact coincidence of peculiar natural advantages. The community is distinct only in its organization with reference to the village transportation focus, and beyond it are similar farms similarly related to other centers.

*Fruit Specialization.*—One farm has been mentioned as different from the rest, the large special enterprise of the Ellison Bay Orchard Company. Although this is but one special farm among more than sixty general farms, it is no less characteristic of the area. Ellison Bay, in its climate modified by the bodies of water east and west and in its silty limestone lands, has excellent possibilities for fruit growing, especially for pie cherries. The cold backward spring retards fruit blossoms in the period of frosts and prevents rapid tender growth; the long mild autumn perfects the growth of twigs and buds; the winter is not dangerously cold for cherry trees nor the summer injuriously hot for the ripening of the fruit. Thorough drainage and lightness of fertile soil are more



FIG. 13—Cheese factory at 7:00 A. M. Farm wagon delivering milk and, farther on, farm automobile having delivered milk stopping at whey tank to fill empty milk cans with whey. General store at extreme right and machine shop at right center.



FIG. 14—Bearing orchard of cherries at the end of July, Ellison Bay Orchard Company.

advantageous, and stoniness and shallowness of soil less objectionable for fruit than for field crops.

The production of cherries is an attractive modern venture, but requires special knowledge and labor, special equipment and materials, without any returns for three years or more. Therefore a majority of the family general farms have not engaged in the enterprise and most of the production is from the one special fruit farm organized and financed by outside interests, in the choicest site of the silty upland, holding 5 per cent of the farm area of the community, 9 per cent of the "agricultural" land, and 14 per cent of the farm capital investment (Fig. 14).

The community is not a separate unit in cherry growing; it is merely an outlying part of the Door Peninsula fruit district centering at Sturgeon Bay. Ellison Bay shares the advantages of climate and soil which make the peninsula fit to be the greatest pie cherry district in the world. In fact the tip of the peninsula is superior to the lower part in being less influenced by land winds. The spring lags about five days behind that at Sturgeon Bay and therefore cherry blossoms are less liable to injury by occasional late frosts, the autumn is longer, and cold waves in winter are several degrees less cold. But Ellison Bay has been under a relative disadvantage in its peripheral position in the district. The market for fresh cherries is supplied by orchards near Sturgeon Bay, where there is more and speedier transportation. The Sturgeon Bay cannery likewise is supplied mostly from nearby. This latter fact is no longer an important disadvantage, however, since the northern part of the peninsula now produces enough cherries to justify a cold packing plant, a new and valuable means of disposal.

The Ellison Bay Orchard Company is in the southern part of the Ellison Bay territory (Fig. 9) and it is therefore natural that the plant should be on the next harbor to the south, around which there are other orchards. In spite of its name the big orchard is less attached to Ellison Bay as a community phenomenon than any other farm enterprise in the area. While the Ellison Bay Potato Association and the cheese factory handle other farm products, it is the Door County Fruit Growers' Association, through its Sister Bay plant (Fig. 15), which handles cherries. The fruit is collected by truck immediately after picking and taken to the plant to be chilled, pitted, sugared and barreled; and thence it is sent by truck to Sturgeon Bay for storage and distribution.





FIG. 15—Cold packing plant at Sister Bay early in August. Truck delivering cherries to platform tanks.



FIG. 16—Young orchard of apples in June, Ellison Bay Orchard Company.

The Ellison Bay Orchard Company is the main factor but does not monopolize the cherry industry in the Ellison Bay area. The excellent conditions for cherries and the success of the industry as now organized in the peninsula have encouraged progressive Ellison Bay farmers to put a few of their eggs into the new basket of cherry raising. Thus cherries have become an item in the general farms of the area, handled through the Sister Bay plant as in the case of the orchard company. Some of the land used formerly for field crops in rotation is occupied now by orchards.

Not all of the crop land is suitable for fruit. In some cases fruit trees have been planted in hollows or on flats where late spring frosts have destroyed the crop. In other cases they have been planted in shallow soil, in holes blasted for them in bed rock, where drought has reduced the crop. The slope may be steep or gentle, northward or southward facing, near the lake or high above it, and the soil may be silty or sandy loam; but in general the industry does not justify itself except on some degree of slope and in moderately deep fertile soil. Yet there are many such places unoccupied by orchards and success is encouraging expansion. A considerable proportion of the trees in the community are not yet of bearing age, and many of these are in small new orchards.

Apple raising is a less spectacular part of the fruit industry and probably a less profitable part (Fig. 16). Apples are less exacting than cherries in their climatic requirements and have a wider range, the Door Peninsula being merely one minor competitive district among many in the Great Lakes region. At the same time apple trees require a longer period to mature and are more exacting in labor required of the producer; seven sprayings are needed annually for various apple pests as compared with four sprayings needed for cherries;<sup>9</sup> and apple packing needs to be done at the orchard to avoid bruising instead of at a central plant, thus increasing the responsibility of the producer and making district standardization difficult.

One fact at least has favored the planting of apples: they do not require such intensive work as cherries during the harvest season, since they are less perishable and since there are more varieties available to ripen successively. The cherry harvest is confined to a

<sup>9</sup> The common cherry pests are shot hole fungus, brown rot, and black aphid; and the common apple pests are codling moth, aphid, scab, curculio, oyster-shell scale and fire blight. U. S. Dept. of Agriculture: op. cit. 17.

period of about three weeks, within which both of the two available varieties<sup>10</sup> must be picked. Indeed the major part of the work falls within the ten days of harvesting the late variety, which is preferred by producers, because in Ellison Bay orchards the trees are more prolific than those of the early variety, the blossoms are less liable to frost injury, and the fruit is larger, easier to pick and more in demand. Of apples on the other hand there are nine varieties<sup>11</sup> found available and produced in quantity. The harvesting season is spread over six weeks. Picking is accomplished with less labor on a smaller scale than in the case of cherries and the fruit can be shipped at leisure without preservative treatment. Whereas the cherry picking season requires the energetic mobilization of all available labor in the district, two or three hundred people for the orchard company alone and two 12-hour shifts at the packing plant, the apple harvest requires hardly more than the regular orchard workers and farm shipping facilities. Many apples grown in the Ellison Bay district are shipped like other crops from the village dock.

Probably it is due to harvest considerations in this area relatively distant from the center of organization, transportation and labor supply, that more apple than cherry trees have been planted by the Ellison Bay Orchard Company and therefore occupy more land in the community as a whole. However, the intensive cherry harvest has proved to be a problem easily solved by local family labor, and other considerations favor the increase of cherries. The new cold pack method for cherries is improving the market by extending the season for fresh cherry pie throughout the year and is allowing Ellison Bay cherries to reach that market through the Sister Bay plant. Attention has been focussed on cherries by the peculiar advantages and success of the industry, familiarizing the people with the methods and perfecting the organization. Therefore new plantings both by the Ellison Bay Orchard Company and by progressive general farmers are of cherry rather than apple trees. Apples are likely to remain as a valuable supplementary crop fitting in satisfactorily with the more important cherry crop. On many farms there are old farmstead apple orchards for home supply, but these do not belong in the same class and are not important in the activities of the community.

<sup>10</sup> Early Richmond and Montmorency.

<sup>11</sup> Duchess, Dudley, Wealthy, Patton's Greening, Snow, Northwestern Greening, MacIntosh, Wolf River, Windsor.

With cherries and apples appear also strawberries as a fruit product of the community, shipped out by truck for distribution by the fruit growers' association. They fill a very small place by themselves, as a truck crop raised by small farmers rather than by orchard specialists, growing well in the light soil and requiring care but little capital equipment or special treatment. While strawberries and cherries are associated in the market it is a far-cry from the scattered strawberry patches to the great orchard, from the incidental money crop for which Ellison Bay has no special aptitude to the aristocratic cherry, the distinctive product of the peninsula, known abroad and esteemed locally as a key to prosperity.

*Forest Exploitation.*—Ellison Bay was founded as a woodchoppers' settlement.<sup>12</sup> The narrow, forested peninsula with its many indentations on both sides offered a supply of timber so accessible that it was exploited early in the history of Wisconsin lumbering. For years timber and cordwood were shipped from Captain Ellison's land around the bay, until no valuable virgin timber remained. Similar exploitation was taking place at Gill's Rock, Newport, Rowley Bay, and Sister Bay. Probably the forest area reached from Ellison Bay was about the same as the area of the present Ellison Bay community.

Today about 55 per cent of the area of the community is still uncleared and most of this is woodland. But the forest industry as an independent activity has vanished; the woodland has been stripped of its timber value and that which remains is of secondary importance in other connections. Hardly 2 per cent of the area of the community is assessed as timber land, and most of this is not virgin timber. The rest of the woodland is assessed as cutover and waste land.

All of the assessed timber lands and most of the cutover and waste lands are in farms. The productivity of these lands is low. Most of them are unsuitable for agriculture, and are in farms for want of other holders. They play a part in the farm economy by supplying rough pasturage, firewood, and some timber (Fig. 17). Most of the farms have more than enough firewood, and on many farms incidental lumber requirements are met by hauling a few logs to the Ellison Bay mill and having them sawed into boards.

<sup>12</sup> H. R. Holand: History of Door County, Wisconsin, Chicago, 1917, I, 372, 373.



FIG. 17—Wooded shore of Lake Michigan at Rowley Bay. Old lumber dock and pile of new cedar posts.



FIG. 18—Fish shanties on the north shore of Ellison Bay. Looking toward Ellison Bluff, enclosing the south side of the bay. Set line motor boat in center, gill net reels and ice house at extreme left, salt herring barrels at right.

Some areas contain growing stands of second growth pines, cedars, or hardwoods, which some day may have value as timber. But the great days of the Ellison Bay woods as a primary timber resource are passed. On fertile land they have been superseded permanently by agriculture. Elsewhere they are destined to remain of small obvious value in supplying minor needs of people who are in the area on account of other resources, and to become of greater intangible value standing as an essential element of attraction for summer visitors. The present status of forest exploitation emphasizes the fact that in this generation the community is organized primarily on the basis of farming.

*Conclusion on Farming Conditions.*—On the whole, prosperity has been denied to the general farmers in recent years. Cramped fields, stony and shallow upland soils, and sandy or swampy lowlands, a climate in which heat and moisture are not abundant nor dependable enough to allow a wide choice of crops or to insure large yields, a location remote from great markets and from great centers of production where new methods originate—these local handicaps have intensified depression at a time when even first rate farming districts have lacked prosperity. The markets have failed if not the crops. Cherries have given encouraging returns but cheese has not brought a high price, and potatoes and the other field crops have hardly repaid the costs of production. There has been neither money nor incentive to keep up and improve farm equipment and to encourage productive effort. Low grade stock and neglected fields are in evidence. The average size of farms is increasing, not through active expansion, but through abandonment and absorption of some farms into larger and less carefully worked units. Unprogressive methods and depression continue in a vicious circle.

*FISHING.*—Ellison Bay is secondarily a fishing village. Apparently an Indian fishing village once occupied the same site,<sup>13</sup> and white fishermen used the harbor before permanent settlement. Now on the water front docks and shanties stand conspicuously (Fig. 18). While these face in the opposite direction from the farm interests and operate in a different realm, yet their relations to the community are not different: boats from the fishing grounds bring in their catch to the village where the product is prepared

<sup>13</sup> H. R. Holand; op. cit. I, 16, 17, 35.



and whence it is shipped along with products of the farms. Most of the regular fishermen do some farming and many of the farmers are part time fishermen.

The basic units of the fishing industry, paralleling the family farms of agriculture, are partnerships of two or three men, having boats, tackle, dock shanties, pound net sites and license to use the common ground of the bay. There are six partnerships, five of them occupying dock shanties on the village waterfront and the sixth having a dock on the shore north of the village. Fourteen partners are the principles in these establishment and at the height of the season thirty-five or forty other men are engaged, as well as numerous children to untangle lines.

Almost the whole bay and lake are satisfactory for fishing of some sort, according to depth and other conditions; at one time or another there is fishing practically everywhere. But fish are more plentiful in some places than in others, with periodic variations, and certain areas are known as good fishing grounds.

The close adaptation of the kind and use of equipment not only to the presence of various kinds of fish but to their moods and movements in their habitat is illustrated by various details. When feeding in summer, lake trout can be hooked but not netted, and when coming on the spawning grounds in autumn they can

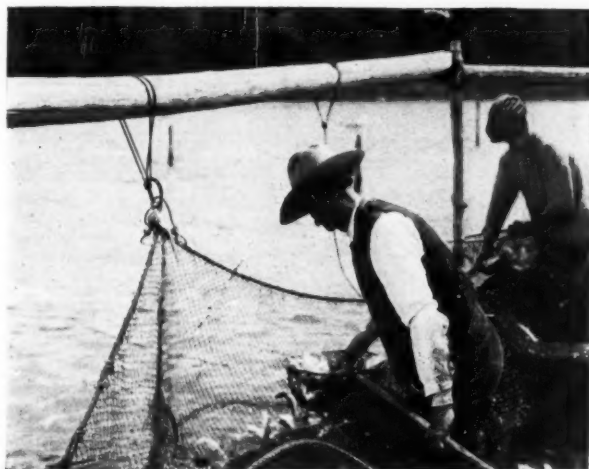


FIG. 19—Pound Net Fishermen

be netted but not hooked. The nets must be thoroughly cleaned by boiling in soapy water when taken up in order to catch fish when used again. The lines on the other hand need not be cleaned and in some cases are not dried for years, being merely salted to prevent rotting when taken up. White fish are not taken by hooks but by nets of one type out in the bay and by nets of another type when moving close to shore. White fish are found spawning on sandy bottom in September and trout on rocky bottom in October. In stormy weather fish are found in deeper water than in fair weather. In winter Green Bay freezes over but Lake Michigan remains open, and, although fish are still present in both bodies of water, fishing is necessarily different.

About 60 per cent of the fish are caught by means of set lines. These are used in Green Bay away from shore and are chiefly to catch lake trout. It is laborious work to handle the "gangs" of lines, four miles in length, fitted with two thousand hooks, to be baited, set, and on a subsequent day hauled in, unloaded and taken ashore to be disentangled. This work occupies every day, morning and afternoon, for the regular fishermen. Yet it is more efficient than small scale hook-and-line fishing, particularly in view of the fact that the fish are near the bottom and that the lines must be sunk accordingly, to depths of from eight to twenty fathoms.<sup>14</sup>

Motor boats are used for the work (Fig. 18). Usually they operate near enough to the village to return every night to the dock, cleaning the catch on the way. Summer is the season of greatest activity, from May to September, when the trout are feeding in the bay.

In May and September, just before and just after the principal set line season, gill nets are used. The net of fine cord hangs as an invisible fence in the water, to entangle the gills of fish swimming near the bottom. Like set lines, gill nets are distributed out in the bay at depths of from eight to twenty fathoms, and are set and taken in similarly. The method is effective, but the season is short and the equipment is expensive, fragile and difficult to handle, a single set of nets being several miles in length. Therefore only the largest establishment has them. Gill nets account for about 10 per cent of the annual catch.

At certain times a few gill nets of small mesh are set at the surface instead of the bottom to catch herring. Other gill nets

<sup>14</sup> See U. S. Army Lake Survey Charts: South End of Green Bay, North End of Green Bay, and Entrance to Green Bay.

of small mesh can be used throughout the year at the bottom at depths of from thirty to one hundred fathoms to catch chubs for smoking. Such depths occur in Lake Michigan but not in Green Bay, so that Ellison Bay fishermen seldom engage in chub fishing.

Through the spring and autumn there are runs of fish along the shores of Green Bay. To take advantage of this fact pound nets are used. As in gill netting, a barrier net obstructs the movement along shore. In this case it is a visible barrier, turning the fish aside in search of a way around, and trapping them in a labyrinthine pound at the outer end of the obstacle.

Each of the fishing establishments has one or two of these set at intervals north and south of the village. They account for about 30 per cent of the annual catch, and they are of even greater significance than is indicated by this fraction of the annual marketable product, because they furnish the bait for set lines. Herring are the fish caught in largest quantities (Fig. 19). Of these the smaller ones are used for bait and the larger ones are marketed for food. Trout, white fish, perch, and pickerel make up a substantial and valuable portion of the catch.

The nets are lifted generally three times a week, to ship the iced product by the steamboat. Their operation requires little time, in contrast with set line and gill net fishing; visiting and lifting them is a mere incident of the day's work. At the same time they represent a relatively large investment, each net being worth about a thousand dollars.

In summer when the catch becomes smaller and netting rots in the warm water, some of the nets are taken out, the others being left to supply bait. In the autumn before freezing, not only the nets, but also the sixty-foot supporting stakes are drawn out to avoid destruction by ice.

In the winter there is fishing in Green Bay by hand lines through holes in the ice. Boats and expensive tackle are not needed, preserving fish by freezing is easy, and other occupations languish at that season. Therefore other people as well as regular fishermen engage in the industry. Some of the regular fishermen continue their operations by moving their headquarters to the east side of the peninsula, fishing in the unfrozen waters of Lake Michigan, and shipping their product directly by road to Sturgeon Bay, thus creating a minor seasonal focus of activity apart from the village.

Each fishing partnership operates separately. Whereas farmers make use of the centralized services in the village for preparing

and shipping their products, the fishermen need no assistance. The nature of their occupation brings them to the village with time and ability to carry forward the urgent processes of cleaning, packing, and shipping the catch. The fresh fish product is packed with ice in boxes and shipped promptly by stage to Sturgeon Bay or by boat to Green Bay or Menominee, consigned to dealers for distribution to interior cities. Most of the larger herring of the pound net catch are cleaned, salted, barreled, and stored for shipment by hooker to Menominee distributors, by whom they are sent to various markets west as far as Montana, south as far as Texas, east as far as Virginia, supplying a particular demand for a kind of cheap food which keeps better than salt water herring.



FIG. 20—Death's Door Bluff from the west. Summer cottage on slope and abandoned fish shanty on shore.

In recent years the fishing industry has been more prosperous than farming. Moderately good prices and relatively low overhead expenses have resulted in fair financial returns. However, the catch has diminished and depletion through overfishing is in evidence, in spite of restrictive regulations and government fish propagation. Further decline seems likely, unless more effective measures are taken to prevent it.

## RECREATION

RECREATION.—Along the shores, less conspicuous and unsightly than the fishing establishments, are the evidences of summer resort activity. This newest and most rapidly expanding interest seems likely to become the most valuable one to the community. The northern end of the peninsula has reached the narrow limits of its possibilities as a fishing center and is of mediocre value as a farming area. But it has unique advantages for summer resort purposes. The rocky wooded bluffs and sheltered beaches characteristic of the Niagara Cuesta (Figs. 21 and 22), exposed to summer breezes both from Green Bay and from Lake Michigan, are unmatched so near to various large interior cities.

Something of an inversion of values has resulted from the development. The more rugged, rocky or sandy shore property, of relatively low value for farming and consequently left wooded, has on these accounts assumed high value for resort purposes. Most of the shore frontage of the community is held for this purpose.

Recreation is still in the development stage. A considerable part of the shore is in large tracts owned by non-residents who saw the possibilities and acquired the land cheaply.

The trend of the times is seen in little changes. Several old fish landings on small pieces of property apart from the village have been purchased recently for cottage sites (Fig. 20). The fishermen have been the more ready to sell on account of recent years of lowered lake level hindering the use of their docks. The only active fishing establishment away from the village has a "shanty" built to accommodate a children's camp during the mid-summer off season for net fishing. In the village there is talk of remodeling one of the grain elevators as a summer cottage.

Hotels and cottages are the active units of the resort business. There are three hotels in the village; and there are fifteen cottages along the village waterfront, five or six on the shore outside of the village, and one or two in the interior outside of the village. Most of the cottages have been built by summer visitors for their own use, on lots bought for the purpose from the Ellison Bay Company, a corporation of non-residents which has acquired and is developing resort property. The best company land is on or near the village waterfront, which is both accessible and attractive.

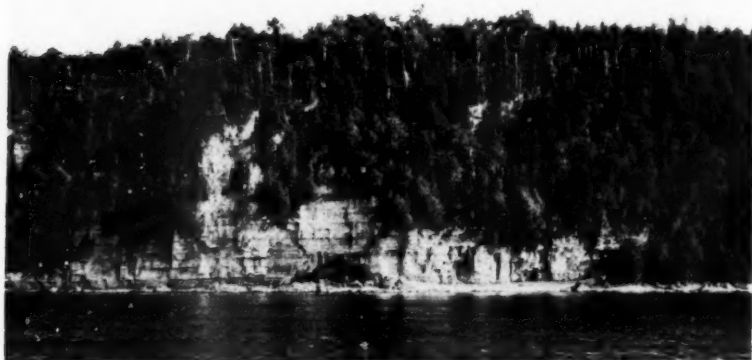


FIG. 21—Ellison Bluff from off shore.



FIG. 22—Balsam Fir trees on the edge of the upland overlooking Green Bay, second growth, like most of the woodland.



It is a striking fact that whereas most of the cottages are on the shore, two of the three hotels are not on the shore, and the third, although possessing a desirable shore frontage, occupies the landward end of its lot, faces a road, and has the shore view obscured by its barn. This is probably to be accounted for by the fact that, unlike the cottages, all of the hotels have been established by local people on their home property. The hotels are used as family dwellings throughout the year, and the hotel keepers are likely to engage in farming or some other occupation. The one hotel which has waterfront property is the all-year-round commercial hotel, and has not catered to summer tourists; it is a business house of the community in the heart of the village.

It is difficult to compute the accomplishments of the resort business in the same terms as those of farming and other industries which produce commodities. The price of the service can perhaps be compared with the price of commodities. The total receipts of the hotels is about \$5000 a season and the total rental value of the cottages is less than \$1000 a season. These figures indicate a low scale of values, considerably below the potential advantages, but corresponding to the present lack of resort development. The hotels are not profitable at present and there are only two or three cottages built for profit.

From the summer visitors' point of view the most peculiar advantage of Ellison Bay at present is perhaps not in its scenery and climate, but in its people and its unspoiled community life. This is an advantage which is decreased by increasing numbers of resorters and greater commercial development. If it becomes widely appreciated it will no longer exist, but will be destroyed by those who seek it.

Yet other attractions will remain and are more likely to be increased by building and landscaping than decreased by forest fire or other injury. The change depends on continued prosperity in the cities and on a continued demand for a sedentary rather than nomadic type of summer vacation. If the trend continues the old community may dissolve and a new form of crystallization appear, as farmers and fishermen fail to prosper in the old ways and as new men enter to guide the resort development.

#### V. CONCLUSION

The community life flows and ebbs through the year. In the warm season there is a crescendo of activity: the farms are pro-

ducing crops, the fishing grounds are scenes of activity and the fishing establishments are preparing the catch and untangling the lines, the cottages and hotels are occupied by city visitors, the cheese factory is making ten cheeses daily and sending away seventy weekly; the thresher starts on its rounds after the sawmill has filled its orders; the elevators clean the peas and grains for sale and grade the potatoes; the commercial dock ships these crops and apples and fish, and receives merchandise; the stores distribute the merchandise to visitors, householders, farmers and fishermen; the post office sends out eggs and miscellaneous produce and takes in mail-order merchandise; the garage sells supplies and repairs cars and machinery; the refreshment shops receive daily consignments by truck and dispense their wares over the counter: the amusement hall is crowded on Saturday nights and the church on Sundays.

Activity is evident from spring to autumn, but there is a varying medley within this period. Fishing declines in the heart of summer and increases again thereafter, while visitors flock in chiefly at that time. The activities of planting, cultivating, harvesting, threshing, cleaning and shipping proceed in an orderly succession of crops and processes through the period. The blacksmith opens his shop for spring and autumn sessions.

Then comes winter. School is in full swing, but other activities languish. Not only do visitors depart, but a conspicuous fraction of the farming population migrates to the city for work, or to the South for recreation, leaving enough hands to care for the livestock and take the milk to the cheese factory. The docks are deserted except to fill the ice houses. The stores operate on a reduced scale and some patrons have to be carried through the winter on credit. Transportation is laborious and there is little to be transported.

Then spring again and high hopes of great and prolonged activity. The cycle is repeated, varying a little from year to year, and changing gradually through the decades. In the few generations of its existence the logging camp has become a general farming and fishing village, and this, now discouraged, turns hopefully to the cherry and the summer visitor.

